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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,597

10/02/2006

Sylvain Capouilliet

2085-101US

2936

25881

7590

07/09/2008

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EXAMINER

BOLDA, ERIC L

ART UNIT

PAPER NUMBER

3663

NOTIFICATION DATE

DELIVERY MODE

07/09/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,597	<b>Applicant(s)</b> CAPOUILLIET ET AL.	
	<b>Examiner</b> ERIC BOLDA	<b>Art Unit</b> 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11 is/are rejected.
- 7) ☒ Claim(s) 5-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is responsive to Applicant's amendment of Feb. 26, 2008.
2. The objections to amended claim 1-5 are withdrawn in view of the amendment.

### ***Response to Arguments***

3. Applicant's argument regarding the 35 USC 112 (2<sup>nd</sup> para.) rejection of claims 1, 7, and 8 have been considered and are persuasive; the rejection is withdrawn. It is noted however, that at least part of the means for optical transmitting an information carrying signal, such as the section between (18) and (20) in Fig. 2, must be part of the invention to make sense of the claims.
4. Applicant's argument regarding the 35 USC 102(b) rejection of claims 1-5, 9 and the 103(a) rejection of claims 6-8 and 10 are moot in view of the new grounds of rejection. However, claims

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Christodoulides (US 6,388,800) (cited in PTO-892 on Oct. 22, 2007).

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7. With regard to claim 1, Christodoulides discloses in Fig. 12 an optical fiber Raman amplifier, including a device for suppressing backscattered signals. The means for suppressing backscattered signals includes

- an optical propagation medium (optical fiber (72)) arranged in parallel with the optical transmission means (68),(70),and (74)
- divertor means circulators (62) and (70) for diverting to the parallel optical transmission medium, and
- discrimination means WDM (76) and (78) for discriminating between a back-propagated pump signal and a Rayleigh backscattering signal arriving via section (70).(Note that the directions of signal and pump are reversed from Applicant's Fig. 2; this does not distinguish between the devices).The isolator (80), in conjunction with the optical filter (82), suppresses Rayleigh backscattering by filtering that passes the pump signal only through (74).(6<sup>th</sup> col. lines 48-52)

The clauses "for use with means for optically transmitting an information-carrying signal" and "for use with means for optically transmitting a plurality of information-carrying signals propagating in optical transmission means at different wavelengths" are essentially a statement of intended or desired use. Thus, these limitations as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See MPEP § 2114. In this case, the means for suppressing backscattered signals is coupled to the optical transmission fiber at the right end ( $\lambda_s$  IN) and at ( $\lambda_s$  OUT) of the Fig. 12. The optical transmission system carries information carrying signals at several different wavelengths (2<sup>nd</sup> col. lines 8-10).

With regard to claim 2, the divertor comprises two circulators (62) and (70).

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christodoulides as applied to claim 1 above and further in view of Aina et al. (US 2001/002452).

With regard to claim 3, Christodoulides does not disclose an optical functional module disposed on the optical transmission means between the two circulators. However, Aina discloses in Fig. 6a line site of an optical transmission system with optical functional modules, such as optical add drop multiplexer (670) and optical amplifier (640) situated on a parallel optical fiber(LB) to other optical fibers (HB). It would have been obvious to one skilled in the art (e. g. an optical engineer) to include the optical module(s) of Aina, for the purpose of removing and adding signals at certain wavelengths at intermediate transmitters and receivers (Aina et al. [0005]).

With regard to claim 4, the optical function module comprises an optical add/drop multiplexer (630) and optical amplifier (640) which functions to regenerates the signal.

Note that the citations made herein are done so for the convenience of the applicant; they are in no way intended to be limiting. The prior art should be considered in its entirety.

***Allowable Subject Matter***

10. Claims 5-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

1. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric Bolda whose telephone number is 571-272-8104. The examiner can normally be reached on M-F from 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Jack Keith, can be reached on 571-272-6878. Please note the fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Eric Bolda/

Primary Examiner, Art Unit 3663